

Fact Sheet



For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-03900004-2010 (Group 1 of 2)**

Application Received: **August 21, 2009**

Plant Identification Number: **03-054-039-00004**

Permittee: **Union Carbide Corporation**

Facility Name: **Technology Park, South Charleston**

Mailing Address: **P.O. Box 8361, South Charleston, West Virginia 25303**

Physical Location:	South Charleston, Kanawha County, West Virginia
UTM Coordinates:	438.7 km Easting • 4,425.5 km Northing • Zone 17
Directions:	From Charleston take I-64 east toward Huntington. Take Kanawha Turnpike exit. Travel west approximately 1/2 mile to the Technology Park.

Facility Description

This renewal permit (Group 1 of 2) provides requirements for the research and development activities conducted at the facility. Another permit (Group 2 of 2) provides requirements pertaining to facility support activities, operations related to manufacturing, and the Market Development Plant. The research and development groups provide experimental, analytical, and engineering support for the development of new products, process technology for manufacturing, and support for existing products and processes. The primary SIC and NAICS codes for this facility are 2869 and 325199, respectively.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions ^f	2008 Actual Emissions ^a
Carbon Monoxide (CO)	17.79	8.93
Nitrogen Oxides (NO _x)	37.71	1.65
Particulate Matter (PM ₁₀) ^b	0.63	Not available
Total Particulate Matter (TSP)	0.77	0.06 ^c
Sulfur Dioxide (SO ₂)	4.01	0.006
Volatile Organic Compounds (VOC)	195.85	81.47 ^d

Hazardous Air Pollutants	Potential Emissions ^f	2008 Actual Emissions ^a
Aggregate HAPs	10.785 ^e	3.879

- a. Actual emissions are taken from the 2009 Certified Emissions Statement Invoice, and represent the emissions from January 1, 2008 through December 31, 2008.
- b. PM₁₀ is a component of TSP.
- c. Contains 0.009 ton of PM-HAPs.
- d. Contains 3.81 tons of VOC-HAPs
- e. Potential aggregate HAPs given here represent all speciated HAPs listed in the Fact Sheet for the initial Title V permit R30-03900004-2005 (Group 1 of 2). The potential emissions of each speciated HAP in that listing is less than 10 tons per year.
- f. Current potential emissions of some pollutants may actually be less than (but not greater than) those above due to recent decommissioning or demolition of some emission units. Due to the present transient state of the facility, and the fact that emission units will continue to be decommissioned through the end of 2009, the “instantaneous” PTEs were not computed by the permittee for this renewal.

Title V Program Applicability Basis

This facility has the potential to emit 195.85 tons per year of VOCs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Union Carbide Corporation's Technology Park Research and Development is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR6	Open burning prohibited.
	45CSR11	Standby plans for emergency episodes.

	45CSR13 WV Code § 22-5-4 (a) (14)	Construction permit requirements The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30 45CSR34	Operating permit requirements Emission Standards for HAPs pursuant to 40 C.F.R. Parts 61 and 63.
	40 C.F.R. Part 61 40 C.F.R. Part 82, Subpart F	Asbestos inspection and removal Ozone depleting substances
State Only:	45CSR4 45CSR21, Section 40	No objectionable odors. Control of VOCs

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-0463B	10/31/2006	
R13-1322A	01/08/1998	
R13-1858	9/28/1995	
R13-2272B	4/24/2002	
CO-R21-97-36	10/16/1997	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

Throughout the following discussions, the terms "current permit" or "current Title V" refer to permit R30-03900004-2005 (AA01) unless otherwise noted. Some condition numbers are marked as "Reserved" throughout the permit. The requirements that were in these current permit conditions either no longer exist, or are no longer applicable. Rather than adjusting permit condition numbers, these are now "Reserved" as a courtesy in order to minimize changes in the permittee's internal environmental tracking system.

1. Title V Permitting Actions

Since the issuance of permit R30-03900004-2005 on 02/24/2005, there has been one subsequent Title V permitting action, which was an administrative amendment (AA01) granted by the

Director on 4/23/2007 to remove permit Section 6 (other R&D activities) due to shutdown of the emission units covered in that section. There will be no further discussion herein concerning AA01 since its changes have already been finalized in the current Title V permit. The renewal permit will simply reflect the current permit in this regard.

2. **45CSR6 – To Prevent and Control Air Pollution from Combustion of Refuse**

Permit conditions 3.1.1. and 3.1.2. were revised to reflect the current rule language.

The particulate matter emission limit from the polyolefins flare 73F is $(5.43) \times (2,100 \text{ lb/hr}) \times (1 \text{ ton}/2,000 \text{ lb}) = 5.7 \text{ lb/hr}$, which is specified in current permit condition 5.1.8. Renewal application Attachment E for flare 73F states that the loading is 900 lb/hr of VOC. Even though the actual loading may have decreased since the initial permit was issued, the PM limit will remain the same. This is due to the fact that the PM limit under 45CSR§6-4.1. is based upon incinerator capacity rather than actual loading. The corresponding means of compliance demonstration are found in condition 5.2.5.

3. **45CSR13 Construction Permits - Permits R13-0463A and R13-0463B**

Permit R30-03900004-2005 was issued with requirements from underlying permit R13-0463A; however, this permit revision was superseded by current revision R13-0463B. The permittee informed this writer that the flare replacement authorized by R13-0463B was never constructed, and the flare FL1 has been operated in accordance with R13-0463A and the current Title V permit. Furthermore, according to the permittee's 11/20/2009 letter to the Director, the flare FL1 has been permanently shut down and demolished. This means that requirements for the ethylene oxide activities and its associated flare FL1 as found in Section 4 of the current permit are no longer necessary and will not be included in the Title V renewal. Rather than deleting Section 4, and renumbering the requirements of Section 5 as Section 4, the requirements of Section 4 will be reserved in the renewal.

The references to R13-0463 and R13-0463A have been removed from the language and citation of condition 3.1.10.

4. **45CSR13 Construction Permits - Permit No. R13-1322A**

Permit R30-03900004-2005 was issued with requirements from underlying permit R13-1322A. However, multiple requirements from this NSR permit are no longer relevant for the Title V renewal permit since the emission units and control devices to which the requirements apply are out of service. A detailed listing of the emission units and control devices not listed in subsection 1.1. of the Title V renewal are given below in the 45CSR30 discussion. Table B, below, describes the conditions of R13-1322A that are no longer applicable.

Table B

R13-1322A	Current Title V	Discussion
A.1.	5.1.1.	This condition applies to the solids storage vessel (3101) which is controlled by a baghouse (A2B1). Both the emission unit and control device are out of service; therefore, this underlying requirement is not included in the Title V renewal.
A.2.	5.1.2.	This condition applies to fugitive PM emissions from the solids handling system, which is integral to the decommissioned solids storage vessel (3101). Since the solids handling system is out of service, this underlying requirement is not included in the Title V renewal.
A.3.	5.1.3.	This condition applies to VOC emissions from process analyzers (4116), monomer recovery (3111), and resin compounding system

R13-1322A	Current Title V	Discussion
		(3111). All of these systems are out of service; therefore, the underlying requirement is not included in the Title V renewal.
B.2.	5.1.19. 5.2.4. 5.2.7.	This underlying requirement sets forth several requirements from 45CSR7. These requirements applied to baghouses A2B1, A3B1, and A4B1, and their respective emission points PV01, PV11, and PV21. These control devices are no longer in service. Therefore, this underlying NSR requirement pertaining to 45CSR7 and the current Title V requirements are not carried over into the Title V renewal permit.

Conditions 5.1.13. through 5.1.15. of the current permit are written with applicability limited to baghouses A2B1, A3B1, and A4B1, and their respective emission points PV01, PV11, and PV21. Since these baghouses have been decommissioned, these conditions would normally have been listed in Table B above. However, according to a 12/01/2009 email from the permittee, these requirements, which cite underlying rule 45CSR7 in addition to R13-1322A, are applicable to other emission units not already specified in the current Title V permit conditions, namely: Reactor Systems 1 through 7 (Em. Unit IDs 100, 200, 300, 400, 500, 600, and 700). Therefore, the requirements of conditions 5.1.13. through 5.1.15. will be carried over to the renewal; the citations of R13-1322A will be removed since they applied to the baghouses; and the Reactor Systems' emission units IDs will replace the baghouses' IDs.

The substantial requirements of R13-1322A apply to equipment that is either no longer in service, or has been demolished. Therefore, there is no need to include this underlying permit in the Title V renewal. In addition to the conditions listed in Table B above, condition 3.1.10. is modified to remove the mention of permits R13-1322 and R13-1322A.

5. **45CSR13 Construction Permits - Permit No. R13-1858**

Current Title V permit condition 5.1.7. requires all equipment listed in permit Attachment 1 to be vented to the flare 73F during operation. Several emission units listed in Attachment 1 are no longer in service; therefore, they have been removed from Attachment 1 in the Title V renewal. Table C, below, lists the information removed from Attachment 1 for this renewal.

Table C

Equipment Name	Equipment ID	Current Equipment ID
Reactor System 8 – Reactor System	3400	400 (700)
Reactor System 8 – Hold Vessel	3500	600
Reactor System 8 – Resin Purge	3600	500
Reactor System 8 – Feed Vessel	3700	200
ENB Storage – System 8	3100	
Reactor System 9	4107	
Reactor System 9 Hold Vessel	4202	
Reactor System 9 Purge Vessel	4207	
Reactor System 10	4307	
Reactor System 10 Hold Vessel	4402	
Reactor System 10 Purge Vessel	4407	
G8-G10 Analyzer System	4116	300

6. **45CSR13 Construction Permits - Permit R13-2272B**

This underlying permit is still active; however, it exclusively applies to Building 705 (B705) laboratories. Due to the fact that this building and the sources of emissions associated with it have been removed from service, the underlying conditions of this permit are not included in the Title V renewal. This removal extends to Title V condition 3.1.10., which in the current permit states that the permittee must comply with the information submitted in the applications for R13-2272, R13-2272A, and R13-2272B. If the equipment to which these applications pertain has been removed from service, it stands to reason that there is now no practical means or purpose to comply with information filed in those applications. Therefore, the following language is removed from condition 3.1.10.: “R13-2272, R13-2272A, and R13-2272B.” The authority citation “R13-2272B, C.3.” is removed as well.

7. **45CSR21 Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds; and Consent Order No. CO-R21-97-36**

As with the current Title V permit, the applicable regulations and compliance demonstrations of 45CSR21 will be taken from the active consent order CO-R21-97-36 for this renewal permit. Since flare FL1 (Em. Pt. ID E1) has been demolished, none of the CO requirements that were in Section 4 of the current permit are carried over to the renewal. Requirements pertaining to polyolefins area are carried over into Section 5 of the renewal.

8. **45CSR30 Operating Permits – Emission Units Table, Recordkeeping, and Reporting Changes**
Emission Units Table Changes

Several changes were made in the Emission Units table in permit subsection 1.1. The changes are based upon information submitted by the permittee in Attachments D of the application, as well as information contained in the permittee’s 11/20/2009 letter to the Director concerning the permanent shutdown and demolition of flare FL1. Thus, all of the emission units belonging to the Ethylene Oxide (EO) Research and Development section are deleted from the emission units table (permit subsection 1.1.).

Emission units 3111, 4107, 4307, 4116, 3101, 4102, and 5102 were deleted from the Polyolefins Process R&D section of the table since these were stricken in Attachment D of the application. According to the application, these units are out of service and are scheduled for demolition.

Emission units BGB, BG2, NXX, OXX, PS1, and PS2 are listed in the application for the Polyolefins Process R&D section. However, since these units have no applicable requirements, they will not be listed in permit subsection 1.1.

Control devices A2B1 and A3B1 were deleted from the Polyolefins Process R&D control device section of the table since these were stricken in Attachment D of the application. Control device A4B1 was also deleted for three reasons: (1) A4B1 is not listed in Attachment D of the application; (2) Em. Unit ID 5102 and its control device A4B1 are both stricken in the application Attachment D; and (3) Attachment G for this device states that A4B1 is out of service and scheduled for demolition.

The emergency generators EG6, EG9, EG10, and EG11 listed in Attachment D of the application are not added to the emission units table since there are no applicable requirements pertaining to them.

Several emission units were not listed in Attachment D of the application; therefore, they are deleted from the “Other” section of the emission units table. The deleted units are: B786, B776, B728, B726 (with associated Em. Pt. IDs B726, 726A1, and 726A2), B725, and B705.

Monitoring and Recordkeeping Language Changes

Permit conditions 5.2.5.ii., and 5.2.3. have been revised by replacing the language concerning the 5-year record retention with a reference to condition 3.4.2.

Reporting Language Changes

U.S. EPA has instructed DAQ that permittees are to submit their annual compliance certification to U.S. EPA via e-mail only (i.e., no paper "hard copies" to U.S. EPA). Therefore, the language of conditions 3.5.3. and 3.5.5. have been modified to provide for this new stipulation.

9. **45CSR34 - Emission Standards for Hazardous Air Pollutants.** This rule now adopts 40 C.F.R. Part 61 in addition to Part 63 since rule 45CSR15 that formerly adopted 40 C.F.R. Part 61 was repealed in the 2008 legislative session. Therefore, the citation in permit condition 3.1.3. has been changed in this renewal from 45CSR15 to 45CSR34.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

1. **40 C.F.R. Part 63 Subparts F, G, and H – National Emission Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry.** The permittee's facility is a research and development facility. As such, the facility is exempt from the requirements of Subparts F, G, and H, in accordance with the exemption provided at 40 C.F.R. §63.100(j)(1).
2. **40 C.F.R. Part 64 – Compliance Assurance Monitoring (CAM)**
In accordance with 40 C.F.R. §64.2(b)(1)(vi), CAM does not apply to any emission unit emitting VOC to the Polyolefins R&D flare 73F due to the fact that a continuous compliance determination method is already specified by current Title V permit R30-03900004-2005 AA01, condition 5.2.1. This condition requires continuous monitoring and recording of flare temperature in order to demonstrate compliance with the VOC limits (4.16 pph and 18.2 tpy) of condition 5.1.4.
3. **45CSR10 – To Prevent and Control Air Pollution from the Emission of Sulfur Oxides.** The emission units in the following table are not subject to 45CSR10:

Emission Unit ID	Description of Emission Unit	Rationale for Non-applicability of 45CSR10
EG6	Building 773 Gasoline-fired Emergency Generator, approximately 10-hp	Internal combustion engines, including gas turbines and emergency generators, are not subject to 45CSR10 as per Director's verbal guidance.
EG9	Building 773 Natural gas-fired Emergency Generator, 45-kW (equiv. to 60-hp)	Internal combustion engines, including gas turbines and emergency generators, are not subject to 45CSR10 as per Director's verbal guidance.
EG10	B771 Bulk Gas Propane-fired Emergency Generator, 11.5 kW (equiv. to 15.4-hp)	Internal combustion engines, including gas turbines and emergency generators, are not subject to 45CSR10 as per Director's verbal guidance.
EG11	West Bulk Gas Propane-fired Emergency Generator, 13 kW (equiv. to 17.4-hp)	Internal combustion engines, including gas turbines and emergency generators, are not subject to 45CSR10 as per Director's verbal guidance.

4. **40 C.F.R. Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.** This MACT applies to stationary RICE, which according to §63.6585(a) is not mobile. According to the application, the generators identified by Emission Unit IDs EG6 and EG11 are moveable by hand; therefore, this regulation does not apply to these generators. This MACT provides emission and operating limitations for stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions (cf. 40 C.F.R. §§63.6600(a) through (c)). By simple conversion of the provided electrical output to horsepower for each of the units, the generators identified as EG9 and EG10 are undoubtedly less than 500-bhp; therefore, these generators have no emission or operating limitations pursuant to this regulation.
5. **40 C.F.R. Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.** This regulation applies to compression ignition internal combustion engines constructed after July 11, 2005 (cf. 40 C.F.R. §60.4200(a)(2)). Regardless of the ignition type, the emergency generators EG6, EG9, EG10, and EG11 were constructed prior to this date; therefore, the emergency generators are not subject to this NSPS.
6. **40 C.F.R. Part 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.** This regulation applies to spark ignition internal combustion engines manufactured or constructed on or after the various dates specified in 40 C.F.R. §§60.4230(a)(1) through (5). Regardless of the ignition type, the emergency generators EG6, EG9, EG10, and EG11 were constructed prior to any of the dates set forth in these sections of the rule; therefore, the emergency generators are not subject to this NSPS.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date:	December 9, 2009
Ending Date:	January 8, 2010

All written comments should be addressed to the following individual and office:

Denton B. McDerment, P.E.
Title V Permit Engineer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Denton B. McDerment, P.E.
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1221 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

U.S. EPA COMMENTS

None.

Public Comments

Public comments are limited to those submitted by the permittee in their letter of January 6, 2010, which was received by DAQ on January 12, 2010, after the last day of the public comment period (i.e., January 8, 2010). The permittee's comments are given below, along with the corresponding response.

FACT Sheet Comments

COMMENT #1

Determinations and Justifications – Item 8. Reporting Language Changes.
See discussion under “Draft Permit Comments” below.

RESPONSE TO COMMENT #1

See Response to Comment #4 below.

COMMENT #2

Nonapplicability determination – Item 2 – For clarity, discussion regarding CAM for Building 771 flare may be deleted since Building 770/771 ethylene oxide research and development activities have been permanently shut down. Shut down of Building 770/771 ethylene oxide research and development activities was discussed under “Determinations and Justification – Item 3, 45CSR13 Construction Permits – Permits R13-0463A and R13-0463B

RESPONSE TO COMMENT #2

The first sentence (regarding Flare FL1 and any emission units controlled by it) of Nonapplicability Determinations – Item 2 will be deleted in the final fact sheet. This change will also be reflected in the Permit Shield section of the final permit (see permit condition 3.7.2.3.).

COMMENT #3

Nonapplicability determination – Item 7 – For clarity, discussion regarding CAM for autoclaves may be deleted since activities have been permanently shut down. Shut down of ethylene oxide research and development autoclave activities was discussed under “Determinations and Justification – Item 3, 45CSR13 Construction Permits – Permits R13-0463A and R13-0463B

RESPONSE TO COMMENT #3

Nonapplicability determination – Item 7 is not necessary since the affected emission units and control device are permanently shut down. This determination will be deleted in its entirety from the final fact sheet. This change will also be reflected in the Permit Shield section of the final permit by deleting draft permit condition 3.7.2.8.

Draft Permit Comments

COMMENT #4

Conditions 3.5.2. and 3.5.5. Compliance certification.

Proposed changes to these conditions provide that annual compliance certifications must be sent electronically to USEPA by email. Condition 3.5.5. provides that certification must be kept for five years. Clarification of the submittal process is needed to understanding activities/records required to demonstrate compliance. What are the data information submittal requirements for electronic submittal? Will a different form be used for the WVDEP and USEPA certifications? Is the Site Responsible Official required to submit the email? Are electronic signatures acceptable? Does UCC have the option of submitting an electronic PDF file version of the hard copy certification sent to the WVDEP?

UCC requests that electronic submittal of annual certifications be voluntary pending issuance of rules and guidance that will address compliance assurance.

Current Proposed Draft Permit Language

3.5.1. Compliance certification. The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: [R3 APD Permits@epa.gov](mailto:R3_APD_Permits@epa.gov). The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.

[45CSR§30-5.3.e.]

Proposed Permit Language:

3.5.2. Compliance certification. The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. ***The annual certification to the USEPA may be submitted in electronic format to the following address: [R3 APD Permits@epa.gov](mailto:R3_APD_Permits@epa.gov). The permittee shall maintain a printed copy of the certification sent to WVDEP/USEPA on site for five (5) years from submittal of the certification.***

[45CSR§30-5.3.e.]

Proposed change show in bold, italics type.

RESPONSE TO COMMENT #4

The draft permit conditions 3.5.3. and 3.5.5. were revised to include all new information and requirements recently provided to DAQ by U.S. EPA.

This writer reviewed several of the permittee's Compliance Certifications on file with DAQ, and found that the permittee typically sends the Compliance Certification to WVDEP and also a "carbon copy" to U.S. EPA Office of Enforcement and Permits Review. DAQ suggests that the permittee convert the hard copies to a suitable electronic format (e.g., PDF file format) and email it to the address given in the permit condition. Below are DAQ's answers (in bold type) to the questions and suggestions posed in the comment.

- a. What are the data information submittal requirements for electronic submittal? **The same data and information contained in the hard copies must be included in the electronic submittal to U.S. EPA.**

- b. Will a different form be used for the WVDEP and USEPA certifications? **No. The permittee should continue to use the forms already used for WVDEP.**
- c. Is the Site Responsible Official required to submit the email? **No, but he or she may. Regardless of who sends the email, the Responsible Official's signature must appear in the appropriate place(s) within the compliance certification electronic file.**
- d. Are electronic signatures acceptable? **Yes. Considering that U.S. EPA is requiring an entirely electronic submittal, it seems reasonable that electronic signatures contained in the email will be acceptable. However, note that U.S. EPA considers the official copy as being the original, signed document that is sent to WV DEP.**
- e. Does UCC have the option of submitting an electronic PDF file version of the hard copy certification sent to the WVDEP? **Yes. This may be the most efficient means and format for electronically transmitting the certification to U.S. EPA.**
- f. UCC requests that electronic submittal of annual certifications be voluntary pending issuance of rules and guidance that will address compliance assurance. **DAQ may not make the electronic submittal voluntary regardless of there being relatively minimal rules or guidance at this time regarding the electronic submittal.**

The language of permit condition 3.5.5. will not be changed in the final permit as proposed by the permittee in this comment.

COMMENT #5

Condition 3.7.2.3.

The following introductory sentence needs to be deleted since the Building 771 flare has been permanently shut down. Shutdown of the 771 flare is discussed in the Fact Sheet. "In accordance with 40 C.F.R. §64.2(a)(3), CAM does not apply to any emission unit controlled by the Ethylene Oxide R&D flare FL1 due to the fact that no emission unit venting to the flare emits pre-control emissions of any pollutant in excess of the major source threshold (i.e., 100 tons per years)."

RESPONSE TO COMMENT #5

The change will be made as requested, and is discussed above in Response to Comment #2.

COMMENT #6

Condition 3.7.2.8.

The condition needs to be deleted since the referenced autoclaves have been permanently shut down. Shutdown of the autoclaves has been discussed in the Fact Sheet.

RESPONSE TO COMMENT #6

The change will be made as requested, and is discussed above in Response to Comment #3.